Assembly and Operating Instructions

Animated Lighting

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Overview

Christmas in a Box is a plug-and-play package from Animated Lighting that enables you to build an exciting music and light show on bushes, trees, windows and any other illuminated items in your display. *Christmas in a Box* includes this manual, a Monster Brain, a light controller, installation examples, and multiple shows to choose from.

Unpacking Christmas in a Box

1 This is the front of *Christmas in a Box* (15A version). It includes a 16-Channel light controller with one three-prong power cord dangle.

2 Here are the three components of *Christmas in a Box:*

Monster Brain - This unit plays your lighting shows and songs.

16-Channel Light Controller (15A unit shown) - Plug your extension cords from your lighting channels directly into the female plugs on the bottom of the this unit.

Expansion Controller
(An Optional Item Sold Separately)

The *Christmas in a Box All-in-One Expansion Controller* (includes a 16-channel light controller.) The 15A unit is shown.

This is available in 15A, 30A, or 60A configuration.

Amplified Outdoor Speaker
(An Optional Item Sold Separately)

This amplified outdoor speaker can be added if you would also like to broadcast music via a speaker to visitors to your display.

FM Transmitter
(An Optional Item Sold Separately)

Visitors to your display can listen to the *Christmas in a Box's* holiday music by turning the FM radio in their vehicle to the appropriate frequency.

Other Parts You May Need to Supply

To complete a *Christmas in a Box* installation, you will need to supply **extension cords** that can connect your lights from their hanging area to the *Christmas in a Box* light controller box. You will need to supply your own **light strings, whether they be C9, C7, mini-lights or LED light strings** (Consult Appendix A for more information if using your own light strands). Finally, you may need **cable ties** to secure lights to trees or other items, plus **duct tape** for securing wires that cross walking paths.

Monster Brain

This is the unit that controls the pre-programmed lighting shows and the corresponding music. You will see the shows and songs are stored on Secure Digital (SD) cards. Please note the instructions that show you how to change your show.

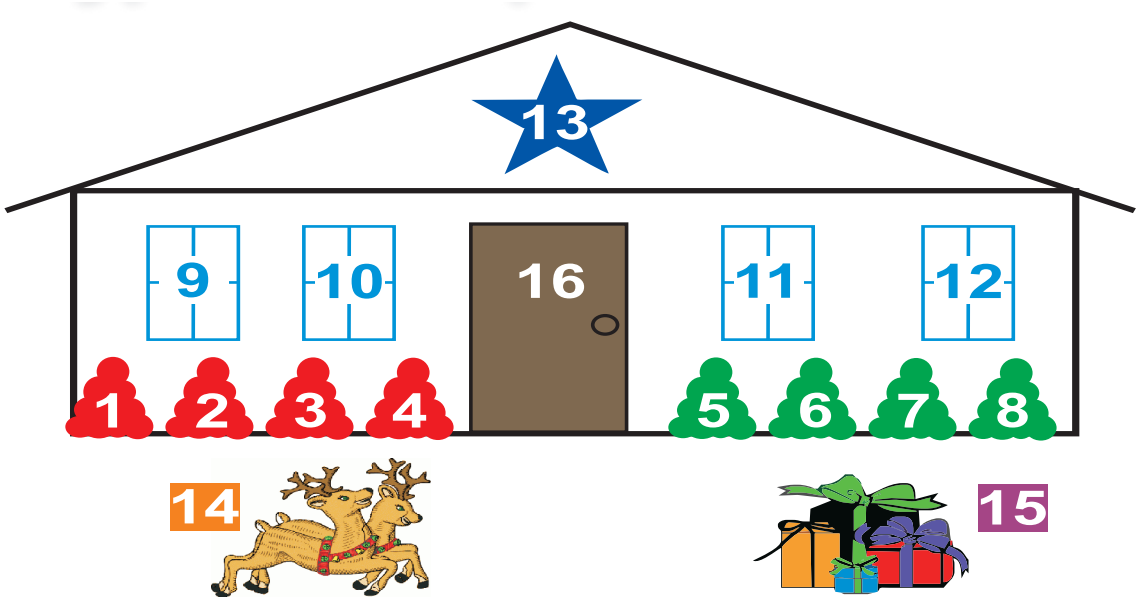
How to Run:

1. Unplug power to entire system
2. Gently push in card where arrow is pointing and release
3. Remove existing show card and put in safe place
4. Insert new show card, label facing up
5. Push in show card until it clicks
6. Plug in power and wait 30 seconds

DANGER - HIGH VOLTAGE

Like any electrical device, disconnect power before making or modifying electrical connections. Failure to do so could result in serious personal injury or death.

Typical Simple Installation Diagram



Later in this manual you will see different examples of how people lay out the lighting channels for their display. We have listed a simple way to lay out lighting channels on a typical residential display. Please note the colors and numbers on the diagram correspond to the various plugs on the light controller. Plugging in your light strings to the light controller should be a breeze!

FM Transmitter

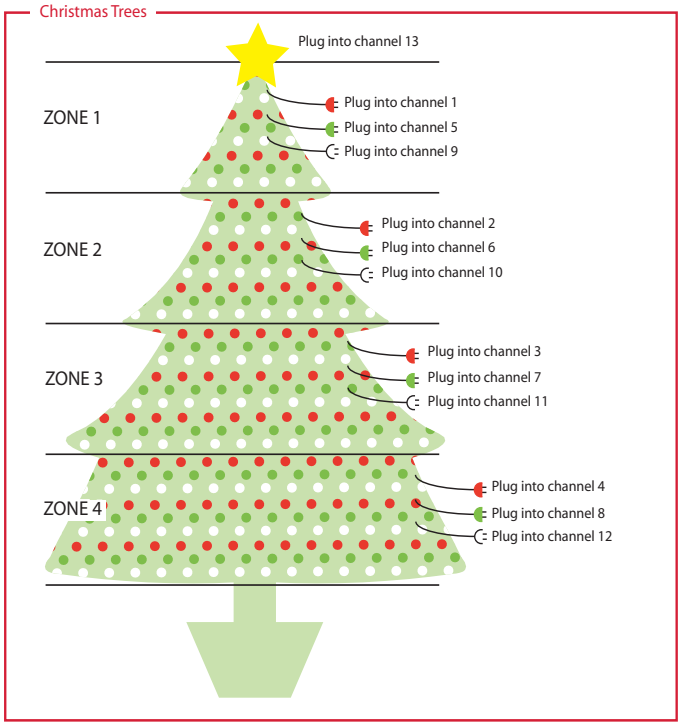
Visitors to your display can listen to the *Christmas in a Box's* holiday music by turning the FM radio in their vehicle to the appropriate frequency.

Use the up and down arrows (middle of transmitter) to set the transmitter and antenna to an unused FM frequency. You may set the audio level of the transmitter using the volume knob on the left. We suggest you set the audio level at about 40 to 60 percent and slowly increase to optimal level. If audio is set too high it will cause distortion on the receiving radio.

IMPORTANT: DO NOT HANG OR LIFT THE TRANSMITTER BY THE ANTENNA

Another Suggested Light Arrangement

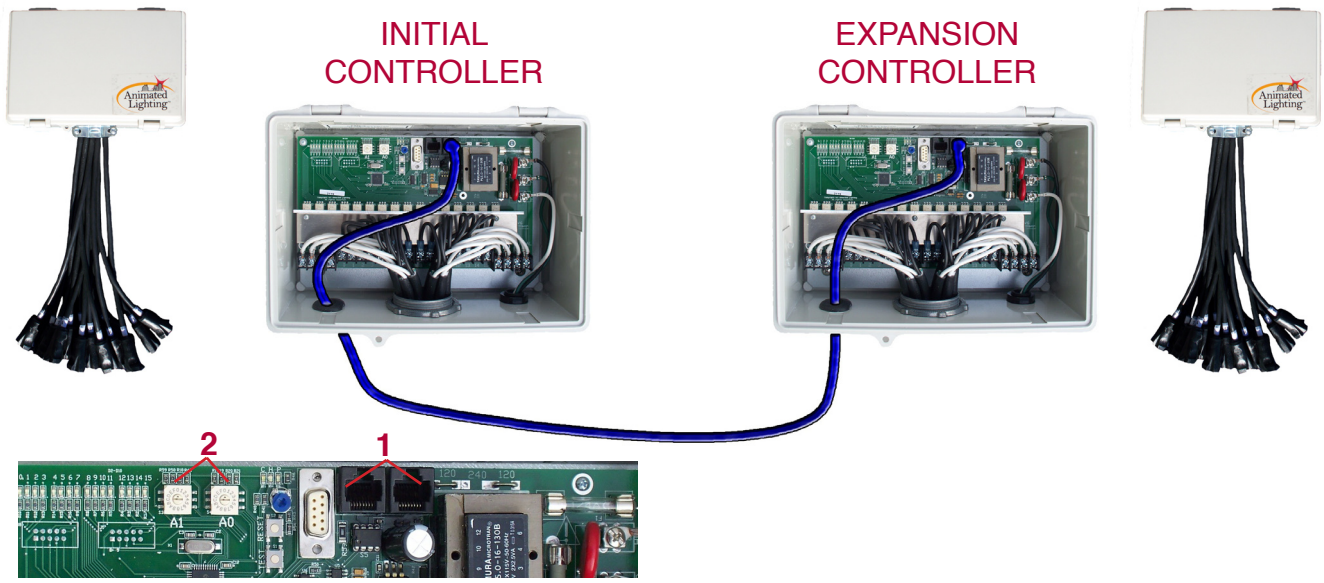
Now that you have selected a show to install, below is an example for hanging your lights. In the first section is a suggested light arrangement for a 16-channel show based on one *Christmas in a Box* light controller.



Don't overload the channels! See Appendix A for how many lights each controller can support!

Using the Christmas in a Box Expansion Controller

You can easily add multiple light controllers to your display with the *Christmas in a Box Expansion Light Controller*, which is sold separately. You add an expansion controller into your display by daisy chaining it to your original *Christmas in a Box* controller with a CAT 5 network cable as shown below:



1) CONNECTION: Locate the RJ45 (8-pin) jacks inside each of your light controllers. Connect one end of a CAT 5 network cable into the open RJ45 jack of your original controller. Run the other end of the cable out of the hole in the bottom of the box, and into a hole on the bottom of the expansion controller. Plug that end into one of the available RJ45 jacks on your expansion controller.

2) ADDRESSING: Locate the two dials on the same board as the RJ45 (8-pin) jacks that say *A1* and *A0* on them. These dials will be changed based on the size of your display (the number of light controllers that are used).

How to Connect Your Light Zones to the Controller

Use the following diagram and table to connect a three color, four zone show to your light controller.

CHANNEL	SUGGESTED ITEM TO PLUG IN
1 (ZONE 1)	Red Light Strands (C9, C7, LED or Minis)
2 (ZONE 2)	Red Light Strands (C9, C7, LED or Minis)
3 (ZONE 3)	Red Light Strands (C9, C7, LED or Minis)
4 (ZONE 4)	Red Light Strands (C9, C7, LED or Minis)
5 (ZONE 1)	Green Light Strands (C9, C7, LED or Minis)
6 (ZONE 2)	Green Light Strands (C9, C7, LED or Minis)
7 (ZONE 3)	Green Light Strands (C9, C7, LED or Minis)
8 (ZONE 4)	Green Light Strands (C9, C7, LED or Minis)
9 (ZONE 1)	White Light Strands (C9, C7, LED or Minis)
10 (ZONE 2)	White Light Strands (C9, C7, LED or Minis)
11 (ZONE 3)	White Light Strands (C9, C7, LED or Minis)
12 (ZONE 4)	White Light Strands (C9, C7, LED or Minis)
13	Miscellaneous (Tree Top Star, Reindeer, Candy Cane, etc,)
14	Miscellaneous (Tree Top Star, Reindeer, Candy Cane, etc,)
15	Miscellaneous (Tree Top Star, Reindeer, Candy Cane, etc,)
16	Miscellaneous (Tree Top Star, Reindeer, Candy Cane, etc,)

NOTE: You can connect other devices to the available outputs (13-16), just be sure the total load at any point in time does not exceed the light controller's amperage limit.

Use for Year-Round

***Christmas in a Box* can be used for several events to dazzle your friends and family:**

Halloween

Use your *Haunted House in a Box* personality cards to play Halloween lighting shows and songs. Plug in strobe lights, flood lights, black lights, etc. for a fun and spooky display.

Parties

Use our *Party in a Box* personality cards. We have the shows and songs to help you and your friends dance the night away!

Patriotic Holidays

Use out *Patriotic* personality cards. We have lighting shows and songs that help capture the spirit of these holidays!

Support Issues or for More Details

CALL: 816.941.0400 (9 a.m. to 5 p.m. CST, M-F excluding holidays)

EMAIL: *support@animatedlighting.com*

Warranty and Disclaimer

Please consult *www.animatedlighting.com* for product warranty and disclaimer information.

Light Load Limits for a Christmas in a Box Controller

Type of Lights Used in Your Display	Maximum quantity of Selected Lights the Christmas in a Box Controller Can Support	Maximum Number of Items That Can Be Connected in a Channel
Using only mini lights	Use up to 72 sets, 100 mini lights on each set	29 100-light sets
Using only LED lights	Use up to 400 sets, 70 LEDs on each set	250 70-light sets
Using only C7 bulbs	Use up to 576 total C7 bulbs	9 25-light sets
Using only C9 bulbs	Use up to 411 total C9 bulbs	6 25-light sets

Each channel is limited to 10 AMPs, but the entire controller is limited to 15 AMPs total. If you are mixing light bulb types, use the worksheet below to determine your AMPs per channel and total AMPS for your light controller. NOTE: A 30 AMP or 60 AMP controller is available for higher amperage requirements.

Item Description (Type of Lighting Used)	Approximate Number of Amps per Item
150 mini lights (.17a bulbs)	0.51
100 mini lights (.17a bulbs)	0.34
50 mini lights (.17a bulbs)	0.17
20 mini lights (.17a bulbs)	0.11
25-light C7 set	1.04
25-light C9 set	1.46
18-foot rope light	0.45
35-light LED set	0.02
70-light LED set	0.04
18-foot morphing rope light	0.90
40-watt Edison bulb	0.33
60-watt Edison Bulb	0.50
100-watt Edison Bulb	0.83
150-watt flood light	1.25

Channel	Item Description (from above)	Amps Per Item (from above)		No. of Items Connected in this Channel		Total Amps (not to exceed 10 AMPS per channel)
1			x		=	
2			x		=	
3			x		=	
4			x		=	
5			x		=	
6			x		=	
7			x		=	
8			x		=	
9			x		=	
10			x		=	
11			x		=	
12			x		=	
13			x		=	
14			x		=	
15			x		=	
16			x		=	
TOTAL	THIS NUMBER CANNOT EXCEED 15, 30, or 60 A			(DEPENDING ON THE CONTROLLER) ▶		